```
      INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
      BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
      CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
      DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 10:35:16 ON
      07 APR 2003
                SEA IDURONIDASE OR ALDURAZYME
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                  3   FILE ADISINSIGHT
                  9   FILE ADISNEWS
                  5   FILE AGRICOLA
                  3   FILE ANABSTR
                  1   FILE AQUASCI
                  5   FILE BIOBUSINESS
                 17   FILE BIOCOMMERCE
                408   FILE BIOSIS
                 32   FILE BIOTECHABS
                 32   FILE BIOTECHDS
                150   FILE BIOTECHNO
                 22   FILE CABA
                 38   FILE CANCERLIT
                276   FILE CAPLUS
                  5   FILE CEABA-VTB
                 44   FILE CIN
                 11   FILE CONFSCI
                 13   FILE DDFB
                 17   FILE DDFU
                 67   FILE DGENE
                 13   FILE DRUGB
                 23   FILE DRUGNL
                 19   FILE DRUGU
                  6   FILE DRUGUPDATES
                  4   FILE EMBAL
                354   FILE EMBASE
                 77   FILE ESBIOBASE
                 10   FILE FEDRIP
                  1   FILE FSTA
                233   FILE GENBANK
                 25   FILE IFIPAT
                  8   FILE JICST-EPLUS
                 68   FILE LIFESCI
                354   FILE MEDLINE
                 92   FILE PASCAL
                  4   FILE PHAR
                 33   FILE PHARMAML
                 49   FILE PHIN
                168   FILE PROMT
                303   FILE SCISEARCH
                 55   FILE TOXCENTER
                132   FILE USPATFULL
                  2   FILE USPAT2
                  1   FILE VETU
                 26   FILE WPIDS
                 26   FILE WPINDEX
L2                QUE IDURONIDASE OR ALDURAZYME
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      FILE 'BIOSIS, EMBASE, MEDLINE, SCISEARCH, CAPLUS, PROMT, BIOTECHNO,
      USPATFULL, PASCAL' ENTERED AT 10:37:03 ON 07 APR 2003
L3                6 S L1 AND MUTEIN
L4                6 S L2 AND MUTEIN
L5                6 DUP REM L4 (0 DUPLICATES REMOVED)
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=> d l5 ibib ab 1-6

L5 ANSWER 1 OF 6 USPATFULL
ACCESSION NUMBER: 2003:51224 USPATFULL
TITLE: Peptide extended glycosylated polypeptides
INVENTOR(S): Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
van den Hazel, Bart, Copenhagen, DENMARK

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003036181	A1	20030220
APPLICATION INFO.:	US 2001-896896	A1	20010629 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DK 2000-1027	20000630
	DK 2000-1092	20000714
	WO 2000-DK743	20001229
	WO 2001-DK90	20010209
	US 2000-217497P	20000711 (60)
	US 2000-225558P	20000816 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
NUMBER OF CLAIMS: 57
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 4732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Glycosylated polypeptides comprising the primary structure NH.sub.2--X--Pp--COOH, wherein X is a peptide addition comprising or contributing to a glycosylation site, and Pp is a polypeptide of interest or comprising the primary structure NH.sub.2-P.sub.x--X--P.sub.y-COOH, wherein P.sub.x is an N-terminal part of a polypeptide Pp of interest, P.sub.y is a C-terminal part of said polypeptide Pp, and X is a peptide addition comprising or contributing to a glycosylation site are provided. The glycosylated polypeptides possess improved properties as compared to the polypeptide of interest.

L5 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:368665 CAPLUS
DOCUMENT NUMBER: 136:385047
TITLE: Methods for large scale production and purification of human .alpha.-L-**iduronidase** for treatment of mucopolysaccharidosis I
INVENTOR(S): Qin, Minmin; Chan, Wai-Pan; Chen, Lin; Fitzpatrick, Paul A.; Henstrand, John M.; Wendt, Dan J.; Zecherle, Gary N.; Starr, Christopher M.; Kakkis, Emil D.
PATENT ASSIGNEE(S): Biomarin Pharmaceutical, Inc., USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038775	A2	20020516	WO 2001-US47843	20011109

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002027369	A5	20020521	AU 2002-27369		20011109
US 2002146802	A1	20021010	US 2001-993038		20011113
PRIORITY APPLN. INFO.:			US 2000-711202	A	20001109
			US 1999-439923	A2	19991112
			WO 2001-US47843	W	20011109

AB The present invention provides a recombinant human .alpha.-L-**iduronidase** and biol. active fragments and **muteins** thereof with a purity greater than 99%. The present invention further provides large-scale methods to produce and purify com. grade recombinant human .alpha.-L-**iduronidase** enzyme thereof. The method involves prepn. of a seed culture contg. Chinese hamster ovary cells 2.131 transfected with a vector encoding cDNA for .alpha.-L-**iduronidase** . These cells is washed and resuspended in a protein-free culture medium supplemented with 7.6 mg/L thymidine, 13.6 mg/L hypoxanthine, 375 .mu.g/mL G418 and 5% fetal bovine serum. The cell suspension is incubated at 37.degree.C for 2-3 days with 5% CO2 in three 225 cm flasks. The said cell suspension is split by sequentially adding the cells to one 1L spinner flask, two 3L flasks and 4 8L flasks. The cell suspension is stirred at 50 rpm, followed by increasing the inoculum vol. by incubating and subculturing cells to a final cell d. of about 2-2.5 x 105. A mixt. contg. macroporous microcarriers is prepd. in growth medium with fetal bovine serum and transfering said mixt. to a bioreactor. Cells from the bioreactor may be harvested at a d. of about 106. Methods for purifn. of .alpha.-L-**iduronidase** to greater than 99% purity include adjusting the pH to an acidic range, followed by filtering the mixt. through a 0.2-0.54 .mu. filter. The filtrate is further passed through a blue sepharose FF column to capture the protein which purifies .alpha.-L-**iduronidase** 7-10-fold. Contaminating CHO proteins are removed by passing the fluid through a copper chelating sepharose column. The mixt. is then passed through a Ph sepharose column to reduce residual leached Cibacron blue dye and copper ions carried over from the previous columns. Purified .alpha.-L-**iduronidase** is concd. and diafiltered. The purifn. steps include 10% glycerol in all buffers to improve the .alpha.-L-**iduronidase** yield. The specific activity of .alpha.-L-**iduronidase** may be greater than 240,000 units/mg protein.

L5 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER:	2002:368334 CAPLUS
DOCUMENT NUMBER:	136:363851
TITLE:	Methods to mass produce recombinant human .alpha.-L-**iduronidase** for treating diseases caused by .alpha.-L-**iduronidase** deficiencies
INVENTOR(S):	Kakkis, Emil D.
PATENT ASSIGNEE(S):	Biomarin Pharmaceutical, Inc., USA
SOURCE:	PCT Int. Appl., 73 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	3
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038171	A2	20020516	WO 2001-US47835	20011109

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002028991	A5	20020521	AU 2002-28991	20011109
US 2002164758	A1	20021107	US 2001-993241	20011113

PRIORITY APPLN. INFO.: US 2000-711205 A 20001109
US 1999-439923 A2 19991112
WO 2001-US47835 W 20011109

AB The present invention provides a method to mass produce human recombinant .alpha.-L-**iduronidase** in large scale amts. with appropriate purity to enable large scale prodn. for long term patient use of the enzyme therapy. The present invention provides a formulation comprising a pharmaceutical compn. comprising a human recombinant .alpha.-L-**iduronidase** or biol. active or **muteins** thereof with a purity of greater than 99%, or in combination with a pharmaceutically acceptable carrier. The present invention further provides methods to treat certain genetic disorders including .alpha.-L-**iduronidase** deficiency and mucopolysaccharidosis I (MPS 1) by administering said formulation.

L5 ANSWER 4 OF 6 USPATFULL
ACCESSION NUMBER: 2002:294715 USPATFULL
TITLE: Methods for treating diseases caused by deficiencies of recombinant alpha-L-**iduronidase**
INVENTOR(S): Kakkis, Emil D., Novato, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002164758	A1	20021107
APPLICATION INFO.:	US 2001-993241	A1	20011113 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-711205, filed on 9 Nov 2000, PENDING Continuation-in-part of Ser. No. US 1999-439923, filed on 12 Nov 1999, PENDING
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWREY SIMON ARNOLD & WHITE, LLP, BOX 34, 301 RAVENSWOOD AVE., MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 20 Drawing Page(s)
LINE COUNT: 2003
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides a formulation comprising a pharmaceutical composition comprising a human recombinant .alpha.-L-**iduronidase** or biologically active or **muteins** thereof with a purity of greater than 99%, or in combination with a pharmaceutically acceptable carrier. The present invention further provides methods to treat certain genetic disorders including .alpha.-L-**iduronidase** deficiency and mucopolysaccharidosis I (MPS 1) by administering said formulation.

L5 ANSWER 5 OF 6 USPATFULL
ACCESSION NUMBER: 2002:265926 USPATFULL
TITLE: Methods for producing and purifying recombinant alpha-L-**iduronidase**
INVENTOR(S): Qin, Minmin, Pleasanton, CA, UNITED STATES
Chan, Wai-Pan, Castro Valley, CA, UNITED STATES
Chen, Lin, San Francisco, CA, UNITED STATES
Fitzpatrick, Paul A., Albany, CA, UNITED STATES
Henstrand, John M., Davis, CA, UNITED STATES
Wendt, Dan J., Walnut Creek, CA, UNITED STATES

Zecherle, Gary N., Novato, CA, UNITED STATES
Starr, Christopher M., Sonoma, CA, UNITED STATES
Kakkis, Emil D., Novato, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146802	A1	20021010
APPLICATION INFO.:	US 2001-993038	A1	20011113 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-711202, filed on 9 Nov 2000, PENDING Continuation-in-part of Ser. No. US 1999-439923, filed on 12 Nov 1999, PENDING
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HOWREY SIMON ARNOLD & WHITE, LLP, BOX 34, 301 RAVENSWOOD AVE., MENLO PARK, CA, 94025
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 1964
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a recombinant human .alpha.-L-**iduronidase** and biologically active fragments and **muteins** thereof with a purity greater than 99%. The present invention further provides large-scale methods to produce and purify commercial grade recombinant human .alpha.-L-**iduronidase** enzyme thereof.

L5 ANSWER 6 OF 6 USPATFULL
ACCESSION NUMBER: 2002:235036 USPATFULL
TITLE: Lysosomal enzymes and lysosomal enzyme activators
INVENTOR(S): Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
Halkier, Torben, Solroed Strand, DENMARK
Jensen, Rikke Bolding, Skibby, DENMARK
Schambye, Hans Thalsgard, Frederiksberg, DENMARK

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002127219	A1	20020912
APPLICATION INFO.:	US 2000-753126	A1	20001229 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1999-1891	19991230
	DK 2000-865	20000602
	DK 2000-866	20000602
	DK 2000-1027	20000630
	US 2000-174652P	20000106 (60)
	US 2000-210984P	20000612 (60)
	US 2000-211124P	20000612 (60)
	US 2000-217497P	20000711 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LAW OFFICES OF JONATHAN ALAN QUINE, P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 58
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 4771
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A polypeptide selected from the group of lysosomal enzymes and lysosomal enzyme activators, comprising at least one introduced glycosylation site as compared to a corresponding parent enzyme or activator. By introducing additional glycosylation sites the resulting glycosylated

lysosomal enzyme or activator obtains improved in vivo activity and thereby provides for improved treatment of lysosomal storage diseases.

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 9073-56-7 REGISTRY
CN **Iduronidase, .alpha.-L- (9CI)** (CA INDEX NAME)
OTHER NAMES:
CN .alpha.-Iduronidase
CN .alpha.-L-Iduronidase
CN Aldurazyme
CN E.C. 3.2.1.76
MF Unspecified
CI MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CBNB, CIN, IPA, MRCK*, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
260 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
260 REFERENCES IN FILE CAPLUS (1962 TO DATE)